

Iowa Byways Nomination Evaluation Guide



2014-2016

Office of Systems Planning

Iowa Department of

Transportation

IOWA DEPARTMENT OF TRANSPORTATION
IOWA BYWAYS PROGRAM

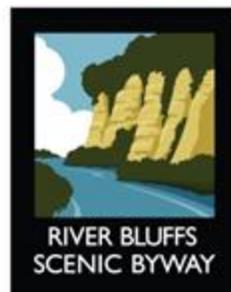
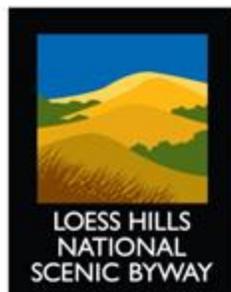
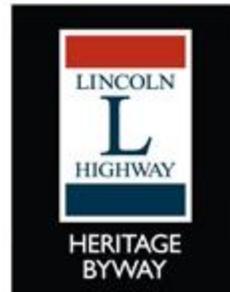
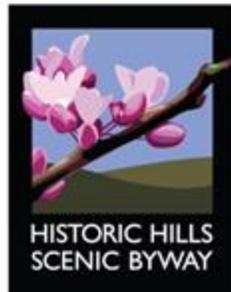
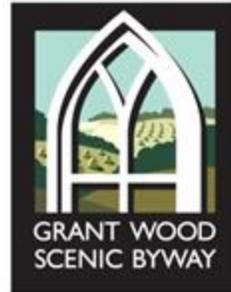
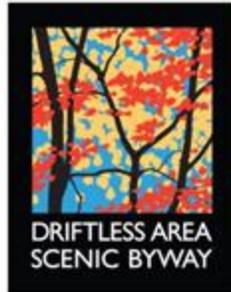
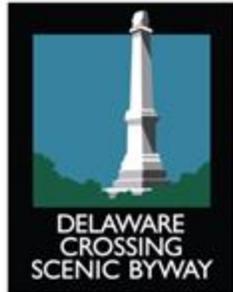


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IOWA BYWAY EVALUATION OBJECTIVE

2007

The objective of the 2007 revised evaluation process project was to develop an alternate method for evaluating nominations submitted to the Iowa DOT for potential designation as Iowa Scenic Byways.

Acquisition of visual data and a means of reporting this data for evaluation were the primary effort. A numeric rating for the byway would be the end result.

The methodology developed would comply with the current program outlined by the State of Iowa. A standardized technique to evaluate candidate routes would lay the foundation for designation and establish a basis for monitoring the quality of a byway after its designation.

2014 - 2016

A mobile tablet application was developed to provide a digital platform for gathering the byway route and elements data and assigning values to the elements inventoried. This Iowa Byways Mobile Evaluation Application will be referred to as the "BE-MAPP". The Iowa DOT, the Iowa Byways Advisory Council and the participating Iowa Byways Program Byway managers conferred during the process.

The content of the 2007 evaluation process has been adapted and incorporated into this 2016 Revised Evaluation Process.

(Note: It is anticipated that this process will be reviewed and revised at the end of the 2014-16 application cycle.)

The evaluation is part of a collaborative process that includes the Iowa Byways Advisory Council which includes a designee from the Iowa Economic Development Authority (IEDA). Iowa Department of Natural Resources (DNR) Iowa

Department of Cultural Affairs (DCA) and the Iowa Department of Transportation (DOT)

The Process Is Based On Iowa Code Chapter 306d- Scenic Routes and Administrative Rules:761—132.1(306D)

The Iowa Byways Program has adopted the concepts and measurement standards established in the National Program administered by the Federal Highway Administration (FHWA).

National Scenic Byways Program with its initial authorization by the U.S. Congress in 1991.

The National Scenic Byways Program was established to recognize roads across the United States with outstanding "intrinsic qualities," defined as "features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area." The Program has dual objectives of promotion and protection that have resulted in innovative partnerships for resource management. Through resource-based tourism, the Program envisions enhanced economic opportunities for the communities and regions through which a byway travels.

The National Scenic Byways Advisory Committee Report noted: "That the program might increase national and international tourism—and create new jobs and economic development—while also serving to preserve the irreplaceable intrinsic qualities of the selected scenic byways corridors, makes it an attractive program. A joining together of objectives to achieve a concurrence of benefits aptly describes the proposed program. Protecting intrinsic qualities may actually increase tourism and lead to economic development." (Scenic Byways Advisory Committee Report, p.vii, emphasis added)

THE IOWA BYWAYS PROGRAM

Intent of program

This program, known as the State Scenic Byway Program, was established to identify, protect and enhance roadways in Iowa which exemplify the state's scenic and historic resources. This effort is carried out through volunteer work and cooperation between interested citizens, organizations, local governments, and the DOT. This is not a funding program. The DOT designates a route as a State Scenic Byway on the basis of scenic and historic qualities, using established criteria. Applicants are then responsible for funding tourism and promotional plans. Federal grant opportunities may be available for scenic byways for certain infrastructure projects (see Federal Transportation Alternatives Program).

Who is eligible to request designation?

While no funds are distributed through the state program, designation as a state scenic byway may be applied for by any group or individual having the support and concurrence of their local government entity (i.e. a County Board of Supervisors, City Council, Resource Conservation and Development Board, or County Conservation Board).

Type of submittal required

Applications are available from the DOT. See also: www.iowadot.gov/iowasbyways/index.aspx.

Application process/deadline

Applications are due October 1, and are accepted in even-numbered years only. This begins a two-year process. Following review of the applications, field inventories are conducted in the following year. The next step is evaluation of the inventory data and preparation of the final reports, including ratings for each route. The evaluations are reviewed by the Iowa Scenic Byways Advisory Council, which selects routes for designation. The process may be complete in the spring of the second year with the installation of Iowa Byways signs following.

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<http://www.iowadot.gov/iowasbyways/designations.html>

THE EVALUATION PROCESS

1. **Review the Byway application and discuss with the applicants.**
2. **Conduct an initial field review of the byway route and amenities.**
 - a. Iowa Byways Program Manager and one or more representatives of the applicant entity.
3. **Establish the GIS layer for the proposed byway.**
 - a. Iowa Byways Program Manager and DOT cartography
4. **Determine what level of analysis is needed.**
 - a. Recommend to Advisory Council what review is needed.
 - b. If further review is needed, plan the budget, schedule and staffing required.
 - c. Initiate a small consultant contract or purchase order for services if required.
5. **Evaluate the key byway elements using a mobile application.**

An evaluation team will conduct the on-site field survey. Participants may include the Byways Program Manager, a consultant, an Iowa Byways expert, a state agency focus area expert and other support for driving and safety.

- a. Prepare by preloading the elements provided into the byway application
- b. Collect data
 - i. Travel in direction A and direction B
 - ii. Catalogue the six intrinsic values recognized by the national scenic byway program in a field review.

The Iowa Byways Program recognizes these six in two general categories:

Scenic

- Natural
- Recreational
- Scenic

Historic

- Archeological
- Cultural
- Historic

- iii. Category S or H
- iv. Values N,R,S , A,C, H (select 1 or more)
- v. Proper Name (if any)
- vi. Description
- vii. GPS
- viii. Photo
- ix. Ownership – Public or private
- x. Accesshours
- xi. Admission costs
- xii. Notes of specific details including age, names, etc. to be considered of “value”

6. **Produce an Evaluation Report for Advisory Council Consideration.**
 - a. Application worksheet
 - b. Description
 - c. Amenities map
 - d. Photos
 - e. Scores
 - f. Expert recommendations

7. **Present to the Iowa Byways Advisory Council for Consideration and action**

FROM NOMINATION TO EVALUATION

The Iowa Scenic Byway Program Designation Guide contains an “Application for Iowa Scenic Byway Designation”. The nominating group is responsible for the information required on this form. The evaluation team will use the information supplied by the nominating group to plan the driving inventory.

A meeting with the Iowa DOT Iowa Byways Program manager and the committee that nominated the corridor provides opportunity for the applicants to provide additional background and to confirm the proposed route. The nomination representative(s) may provide a guided tour of all or part of the nominated route. The program manager may also request additional information and offer more information about the Iowa Byways Program and the post-designation expectations.

The nominating committee should be very familiar with the corridor and can provide valuable information about the roads as well as the location of heritage elements. The committee’s familiarity with the corridor’s amenities and history is a significant resource for inventory preparation. Although not defined in the application form, exact location of heritage elements (mapped before field inventory) eliminates lost time searching while performing the team evaluation.

Preparation for the driving inventory to gather evaluation data includes researching information about the nominated corridor, securing additional maps if necessary and organizing the driving order. The evaluation team is not responsible for creating a complete inventory, but may add information they may contribute as experts in scenic or heritage qualities along the corridor.

The GPS proximity of features (if any) provided in the application can be loaded into the mobile application before the evaluation team takes the process into the field. A printed map can provide orientation to the team, and the live time mobile application in the field can provide navigation and visual reference to the features provided in the byway application.

Researching general information on the nomination will prepare the field team so they become familiar with the location of the route. The category of the route nomination (scenic, scenic/heritage or heritage) affects what elements need to be rated and evaluated.

Road characteristics, i.e., road names or numbers, length, surface type, and termini need to be recorded. Important facts and location of historic events can be noted on printed maps for easier reference in the field.

Although the optimum time for performing the inventories would correspond with the growing season of scenic vistas, evaluation can be conducted at a time that best fits the program in a given year. Late spring, summer and early fall exhibit the best color and crops are at the peak of their growing season.

Accommodation for road construction, weather elements and safety should be considered during the planning.

Additionally, the safety record of the route can be easily analyzed by DOT staff and provide insight on the route’s travel safety and locations that might be of concern when adding additional travelers and way-finders to the byway route.

EVALUATION TEAMS

A four-person team is recommended to perform the field inventory. The team members should be familiar with the duties of each team member. The team may find that changing roles, seating positions and task-sharing can provide a welcome change of pace and full engagement in the process.

The team will work together in calling out, recording and scoring the elements. The experts are also encouraged to make notes along the route as they may provide additional observations or recommendations that would support the decision-making process or offer advice for the potential byway sponsors.

Although there is opportunity to add more items to the inventory than the sponsors submitted, the team is not obligated or expected to completely inventory the proposed route during this evaluation process.

Team member roles:

- **Team Leader-** The DOT Iowa Byways Program Manager
- **Team Driver-** An Iowa DOT employee familiar with the byways program and other infrastructure and program concerns
- **Byways Expert-** This person may be chosen from a pool of recognized Iowa Byways experts with experience in developing and managing a byway in the Iowa Byways Program.
- **Special Content Expert-** This person is selected for a particular prospective byway, based on the focus of the nominated byway. For example: A scenic byway may require a DNR or IEDA staff person familiar with visitor expectations and

a Heritage byway may require an Iowa DCA or DOT historian.

Team Leader:

The non-driving team leader from DOT will be responsible for directing the process in the field and recording elements in the mobile application.

While the team leader will announce preloaded points in the BE-MAPP that will predict upcoming points for review, additional observations may be added as the team members observe and call out important attributes.

The team leader will also help discuss and evaluate the byway elements but will mainly facilitate and record the observations of the other team members.

Driver:

The team driver is primarily responsible for the safe travel and operation of the team vehicle. To safely navigate, the driver needs to be familiar with the nominated corridor's route and the general location of key elements in the application.

The driver will be responsible for locating safe pull-offs for the team to discuss route information observations of each section of roadway driven. The driver will also assist with noting details such as scenic viewpoints and scenic segment start and end points.

The driver may also look for scenic and heritage elements as the route is driven and relate these observations to the team.

Note: The driver and the team will determine the pace (speed) that is comfortable for driving the roadway and recording the evaluation. A slower pace may be necessary for the team to survey the landscape looking for both scenic or heritage elements listed on the mobile application.

Expert Team Members:

Both expert team members will assist in “calling” audibly what elements he/she is observing to be recorded in the IB-MAPP.

The two experts will be the main observers and will visually survey the landscape for elements. If heritage sites or locations are part of the nomination, they will assist the driver in looking for these sites and stopping or repositioning as needed to document the items.

Team Tasks:

For each element evaluated there are three basic steps:

1. Confirm BE-MAPP details as pre-entered or added
2. Discuss value and share expert input
3. Score the elements 1-2-3-4-5-6-7.

Additional documentation:

- A picture or GPS locate may be added to the record manually. It may be necessary for a team member to exit the vehicle.
- Team members may catalogue any additional notes they may wish to pass on to the advisory council or the prospective new byway managers.

Equipment, Materials and Supplies for the Field Evaluation

Equipment:

- DOT rooftop hazard light
- ANSI compliant reflective safety vests for each team member
- One or two tablet computers for the BE-MAPP equipped with built-in camera and GPS locator.
- Hand-held GPS locator
- Additional camera
- Optional digital video camera
- Additional charging and battery supplies
- BE-MAPP Instructions

Evaluation materials:

Maps and other primary byway review and reference materials will be provided to the team members in advance by the team leader for study:

- Complete Submitted byway application
- Byway Route map
- Supplemental byway information
- Evaluation Process Worksheet
- This Iowa Byways Nomination Evaluation Guide
- BE-MAPP category and ranking lists

An expert may also offer supplemental materials before, during or after the field evaluation.

Supplies

- Writing tablets and supplies
- Iowa DOT road maps
- Bottled water or season comfort supplies

Driving And Rating The Nominated Corridor

Attention to this point has centered on the process of receiving, processing and evaluating a byway nomination.

This section will discuss the process in a hypothetical way and provide more substance to the subjectivity associated with the task of rating a byway.

The team approach to the driving inventory lends itself to an open discussion of observations made by the team. The BE-MAPP inventory form is the tool for recording what the team visually perceives. (See BE-MAPP Inventory Form attachment.)

As the road is being driven a conscientious effort is made to objectively evaluate what is being viewed. Rating scenery in Iowa should be based on how special or unique the scene is within the framework of Iowa.

The Inventory Process

The Mobile application provides a navigation tool and a format for description and rating in a sequence that calls out categories and descriptions the observers and recorder may use to capture enough density of byway data to provide adequate descriptions and elements to evaluate.

The elements evaluated may be a point or a segment. Each element is broken down into sub-elements and descriptive categories, depending on the feature type. More than one element may be collected and scored at a given location.

Diligent recording of information while in the field will alleviate trying to recall inventory events back in the office setting. Rather than recording the entire route, Google Earth, LiDAR and other resources may be used during the analysis process to supplement or clarify the field observations.

The team may observe segments or points that are not in the application, but appeal to the traveler and should be captured for consideration - especially if the route is to be categorized as “scenic”.

The team may discuss the segment or point and determine if or how to collect it. It could be noted to observe and rate the section when driving the route from the other direction.

Positive elements are to be viewed as enhancements to the roadway and are a pleasing visual experience for the traveler. Negative elements are likely to detract from the scenic quality and adversely affect positive elements present. Negative items observed may also be noted at any point and added to the route inventory.

Getting Started

In the 2016 process, the preloaded inventory will provide a starting framework for completing an adequate review. The evaluation team will begin the route and head toward the first recorded element.

Rather than marking an evaluation every mile or 1/10th of a mile - what the team observes will determine what additional features are notable enough to be captured.

For visual impact, the team should be aware of when a view reaches 3 or 4 on this scale and is relevant to the byway’s target category; it may become “notable.”

- 1 = minimal visual impact
- 2 = average visual impact
- 3 = high visual impact
- 4 = significant visual impact

The impact rating can be used for positive as well as negative events. For example, a stately century home with well-manicured surroundings will have a high to significant visual impact (3 to 4) in the positive elements “structures” category. The same rating could apply to a junkyard’s visual impact in the negative elements section of

the inventory form with a high to significant visual impact of (3 to 4) in the “view distraction” category. These ratings will help define the impact positive and negative elements have on the overall corridor rating.

When driving the nominated corridor, the inventory team will determine a numeric rating for each element recorded. As discussed earlier, rating a corridor for quality of view is broken down into seven ratings. Numbers have been assigned to view quality and are as follows:

- (7) Extraordinary – exceptional quality (positive elements are unique and noteworthy – negatives are absent)
- (6) Excellent – outstanding quality (view makes a memorable lasting impression)
- (5) Very Good – very high quality (view captivates your attention)
- (4) Good – above ordinary in quality (view is pleasant but not memorable)
- (3) Average – so-so views
- (2) Below Average – less than desirable (views are unpleasant and may detract from higher quality views)
- (1) Poor to Very Poor – very low quality (views that are distracting or completely distracting and make a negative impression)

Heritage elements will be noted on the evaluation form and will add to the overall rating if the elements have significance. Heritage elements exhibited along a corridor should reveal characteristics reminiscent of the original land use, or historic sites and structures are visible, or the road design is reflective of the era or time frame. A mile section of roadway may not display an abundance of scenic elements but may be rich in historic features. The rating in this

instance would concentrate on the historic value rather than the scenic value.

A “heritage” nomination would require extensive research and the driving corridor inventory performed in such a way as to establish a rating indicative of the heritage elements present and that those heritage elements reflect Iowa’s historic past. (The National Register for Historic Places is an excellent resource available to identify historic sites county by county across Iowa.) The rating criteria would change and ratings would be determined by the elements that research indicated should be present. A historic highway would have different criteria to evaluate than a military route that existed before the era of automobiles and contemporary roadways. A good rating (4 and above) would indicate that at least two or more historic features were present.

Only elements seen by the inventory team will be recorded in the BE-MAPP. For example, the first mile may only reveal agricultural land with no topographic relief or color/pattern, no farmsteads or structures, no water elements, but a distant forested hillside can be seen the entire way. A church is located at three-tenths of a mile. There are no negative obstructions. The roadway was level and had no horizontal changes.

The observation for this mile could include these elements:

1. (*Agriculture Scene: Ag Farmland*)
2. (*Landform Scene: Hills & Bluffs*)
3. (*Structure Focal Point: General Building or Structure*) at three-tenths of a mile
4. (*Land Use: Agriculture*)

As the team discusses the route along the mile, nothing notable has occurred and the overall rating might be a 3 to 4, meaning the mile was below average to average. In this instance the agricultural land was so-so, the distant forested hillside did not add significantly and the church didn’t have unique architecture or a beautiful setting. The mile was mediocre -not memorable.

The team will not stop to record a rating for this location.

Conversely, the next mile becomes hilly and curves into the forested region that was in the distance in the previous mile. The team reaches the top of the hill and a panorama opens up with a view of terraced farmlands, two attractive farmsteads, and at the end of the curvy mile, the team crosses a tree-lined stream with an architecturally unique bridge. Several elements have been encountered in the mile. The evaluation data for this mile could include these elements:

1. (*Landform: Hills & Bluffs Panorama*)
2. (*Landform: Unique*) Terraces
3. (*Vegetation: Forests & Fields Panorama*)
4. (*Vegetation: Forests & Fields Scene*)
5. (*Agriculture: Farmland Color/Pattern Panorama*)
6. (*Agriculture: Farmland Color/Pattern Scene*)
7. (*Agriculture: Features [farmstead] Scene*) If close to the road features of the farm could be a focal point.
8. (*Land Use: Agriculture*)
9. *Roadway Ribbon*
10. *Roadway Terrain*
11. (*Water: River or Stream Scene*) marked at the end of the mile section.
12. (*Structure: Unique Focal Point*) Bridge

This mile has many elements marked indicating the scenic quality was excellent. The team will determine what length of segment, points, or individual items to catalogue and rate in the BE-MAPP inventory such as the bridge. Superior roadway presentation will be noted along with the variety of views that element provided. After discussing the corridor, the team may concur that this mile $\frac{3}{4}$ mile segment and deserves a 5 to 6 rating for scenic quality of the drive, (remembering 7 is the best). Additionally, a specific point could be entered to rate a remarkable farmstead view or a particular historic bridge...

A segment may fall below the (3) rating if numerous negative elements are present. Consider a roadway that meanders along a river that is obscured by vegetation and is littered with billboards. In addition, enormous power poles are constantly in the line of site as one looks ahead. The team would note the negative elements. This section would receive a poor rating and fall below the average, perhaps a 1 or 2.

Note: The BE-MAPP has categories for ratings. Each member can express his/her rating and if the team is not in agreement, an average of the team members might be appropriate. Further discussions about the route may follow if the team member's ratings are too dissimilar.

It is difficult to create mile by mile scenic images without personally experiencing the views and perceiving the depth of elements. Therefore, our example contains hypothetical ratings.

This 2016 evaluation will not rate every mile, but the team should consciously assess any progression from "really good to really bad" and note any extremes that should be noted.

Were there unique features? If the corridor was nominated for heritage, were the heritage elements visible? Presentation and variety of views needs to be considered. Most importantly, is 50% of the corridor above average? Several of the sections were above average but several were also below, the question needs to be asked, "Is the corridor memorable?"

The team would then drive the route in the opposite direction and rate segments again-being aware of how the view may differ from the same segments driven in the first direction.

Comparisons can then be made as to ratings in both directions and discrepancies can be discussed and evaluated. For instance, roadway ribbon may not have been noted in one direction but was present

and was noted in the opposite direction. The mile sections can then be adjusted and if necessary a correction can be made.

It is anticipated that each travel section must have numerous scenic or heritage elements present to produce a higher than average rating and qualify for consideration in the formal scenic byway designation process.

After the inventory team has driven the nominated corridor or extension in both directions, the team can discuss an overall rating for each direction.

FROM EVALUATION TO DESIGNATION

It is the responsibility of the inventory team to evaluate a nominated corridor for scenic, scenic/heritage, or heritage byway designation. The information will then be given to the Iowa Scenic Byway Advisory Council for the final decision.

Evaluation Team Input

The BE-MAPP scores of the individual items noted will be downloaded into a spreadsheet format where additional numeric analysis and summaries can be derived.

Each Evaluation Team member will submit a brief report with their comments, additional expert observations and recommendations to the team leader. Recommendations may include a “yes or no” on the designation and any recommendations such as alternative routes or loops; further study, or re-nomination.

When a draft Evaluation Summary Report is complete, the team leader will provide this to the team for their review and comment.

The field team may conduct a conference call to finalize their consensus on the new byway designation or extension evaluation.

Evaluation Summary Report

An Evaluation Summary Report will serve as the final document for the Iowa Byways Advisory Council and the process record...

The team leader and DOT staff will complete the numeric analysis and compile the Byway Evaluation Report for each proposed new byway or byway extension. This may include any information obtained during the application and evaluation period including:

- 2014-2016 Byway Evaluation Form worksheet.
- The submitted application form and materials
- Route maps
- Spreadsheet of numeric values from BE-MAPP entries made during the field review
- GIS-based feature map and/or listing of catalogued elements of value.
- Photos from the field evaluation or other sources
- Summary of the recommendations from the Byway Evaluation Team

The Office of Systems Planning and Iowa Byways Program Manager will review the report for each nomination and determine the content of the summarized recommendations to be presented to the Iowa Byways Advisory Council.

IOWA BYWAYS ADVISORY COUNCIL DESIGNATION RECOMMENDATIONS

Designation will be based on ratings obtained from the evaluations and any additional information available to the Council from the inventory teams and Byway Evaluation Report.

IOWA BYWAY PROGRAM BASICS:

DESIGNATION CATEGORIES

The Iowa program is based on three designation categories. These are:

1. Naturally Scenic where designation is based on a high degree of consistent natural landscapes that attract the visitors and encourage them to continue along the route.
2. Scenic and Heritage where designation is based on a combination of naturally scenic views and significant historic or cultural areas.
3. Heritage where designation is based on a high degree of consistent historic or cultural significance and has little or no natural scenic quality.” The “heritage” category of Iowa Byways is based on the FHWA definition of “Historic Quality.”

The goal of a byway program is to identify and designate roads with views of high scenic and/or heritage quality. The visual quality along a potential scenic byway route should be uniformly high. Diversity of scenic elements provides a “change of pace” and adds to the travelers’ enjoyment.

A “visual features” list of scenic and historic elements based on the three designation categories was established and will be used in a driving inventory of the nominated corridor. The list was incorporated into an evaluation tool to be used in the field by an inventory team.

The Iowa Program was initially focused on primarily scenic and visual elements. It has developed into a broader approach with the



adoption of the FHWA definition of “Intrinsic

Figure 1 Iowa Great River Road National Scenic Byway view of the Mississippi River

Values”. (See page 20.)

SCENIC BYWAY CRITERIA

A scenic byway should meet the following criteria:

- 1) High scenic quality should exist over fifty percent of the route.
- 2) The corridor should offer diversity and provide good “change of pace” that holds the observer’s interest.
- 3) The corridor should have areas containing outstanding views.
- 4) The visual character of the corridor should produce a lasting impression.

A scenic byway evaluation will define and evaluate a point, a scene, a panorama or a segment of travelled roadway. Natural and manmade elements may be identified as assets or liabilities for any given evaluation location. The diverse categories and descriptions are provided in this evaluation guide.

HERITAGE BYWAY CRITERIA

A Heritage Byway in Iowa's program is defined, "Heritage, where designation is based on a high degree of consistent historic or cultural significance and has little or no scenic quality."

Heritage byways should emphasize the apparent intrinsic qualities characteristic of a corridor. The heritage corridor exhibits historic elements, cultural resources and possibly historic landscapes. These roadways should give the traveler a sense of the history reminiscent of the period.

Heritage elements inventoried in the evaluation process can be categorized into three types of elements:

1. Land use is a primary element of the historic setting. A heritage corridor should exhibit several characteristics of the original land use period.
2. Structures or historic sites along the corridor include buildings, corrals, pens, grain elevators and other structures that were an important element of the historic setting.
3. Road related items are elements directly associated with road design used in historic roadways.



Figure 3 Historic Iowa Lincoln Highway bridge at Tama, Iowa



Figure 2 Lincoln Highway promotional postcard

"Historic Quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or manmade, that are of such historic significance that they educate the viewer and stir an appreciation for the past.

The historic elements reflect the actions of people and may include buildings, settlement patterns, and other examples of human activity.

*Historic features can be inventoried, mapped, and interpreted.
They possess integrity of location, design, setting, material, workmanship, feeling, and association."*

FIELD INVENTORY AND EVALUATION

Data Collection of Views

Information to be observed and collected during the inventory includes the following:

1. Types of views along the route including panoramas, scenes and focal points,
2. Quality of the various views along the route from outstanding to poor or distracting,
3. "Length of view", how long one sees a particular view or element,
4. "Presentation", relative ease of seeing the various views and elements as the road is driven,
5. Visual character of the roadway alignment (terrain or roadway ribbon),
6. Types of scenic areas or historic sites along the route,
7. Variety of views as the route is driven.

Types of Visual Elements

Byway nomination categories, as mentioned earlier, can be scenic, scenic/heritage or heritage. The inventory of a roadway is performed to acquire data pertaining to the visual qualities (scenic or heritage) along a roadway corridor. A list of inventory elements was established that is the basis for identifying key visual features present when driving a roadway corridor. The base elements include:

1. Landform
2. Water
3. Vegetation
4. Agriculture
5. Structures
6. Man-made features
7. Heritage features
8. Amenities

Intrinsic Qualities

This Federal Highway list of intrinsic values add dimension to the evaluation process:

- Archaeological
- Cultural
- Historic
- Natural
- Recreational
- Scenic

National Scenic Byways Program (FHWA Policy 5.18.95)

EVALUATION DEFINITIONS FOR SCORING

Scenic View Qualities

Iowa's natural beauty is visible along roads throughout the state. Some of these roads are quite special and open up views of rolling hills and bluffs, picturesque streams, farms and quaint villages that dot the landscape giving the state its unique character. These roads are a state resource and rating the quality of view is important in the final evaluation of a byway nominee.

Rating a corridor for quality of Scenic View is broken down into seven ratings:

- 1) Extraordinary – exceptional quality (positive elements are unique and noteworthy – negatives are absent)
- 2) Excellent – outstanding quality (view makes a memorable lasting impression)
- 3) Very Good – very high quality (view captivates your attention)
- 4) Good – above ordinary in quality (view is pleasant but not memorable)

- 5) Average – so so views
- 6) Below Average – less than desirable (views are unpleasant and may detract from higher quality views)
- 7) Poor to Very Poor – very low quality (views that are distracting or completely distracting and make a negative impression)

Heritage Qualities

Rating a corridor for quality of Heritage elements is broken down into seven ratings:

- 1) Extraordinary – exceptional quality (positive elements are unique and noteworthy – negatives are absent)

- 2) Excellent – outstanding quality (makes a memorable lasting impression)
- 3) Very Good – very high quality (captivates your attention)
- 4) Good – above ordinary in quality (is pleasant but not memorable)
- 5) Average – so so
- 6) Below Average – less than desirable (unpleasant and may detract from higher quality views)
- 7) Poor to Very Poor – very low quality (distracting or completely distracting and make a negative impression)

APPENDIX

The following materials provide additional reference and guidelines for evaluating byways. -

APPENDIX A

INTRINSIC QUALITIES

National Scenic Byways Program (FHWA Policy 5.18.95)

Archaeological

Archaeological Quality involves those characteristics of the scenic byways corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted. The scenic byway corridor's archeological interest, as identified through ruins, artifacts, structural remains, and other physical evidence have scientific significance that educate the viewer and stir an appreciation for the past.

Cultural

Cultural Quality is evidence and expressions of the customs or traditions of a distinct group of people. Cultural features including, but not limited to, crafts, music, dance, rituals, festivals, speech, food, special events, vernacular architecture, etc., are currently practiced. The cultural qualities of the corridor could highlight one or more significant communities and/or ethnic traditions.

Historic

Historic Quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or manmade, that are of such historic significance that they educate the viewer and stir an appreciation for the past. The historic elements reflect the actions of people and may include buildings, settlement patterns, and other examples of human activity. Historic features can be inventoried, mapped, and interpreted. They possess integrity of location, design, setting, material, workmanship, feeling, and association.

Natural

Natural Quality applies to those features in the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water bodies, vegetation and wildlife. There may be evidence of human activity, but the natural features reveal minimal disturbances.

Recreational

Recreational Quality involves outdoor recreational activities directly associated with and dependent upon the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences. They include, but are not limited to, downhill skiing, rafting, boating, fishing, and hiking. Driving the road itself may qualify as a pleasurable recreational experience. The recreational activities may be seasonal, but the quality and importance of the recreational activities as seasonal operations must be well recognized.

Scenic

Scenic Quality is the heightened visual experience derived from the view of natural and manmade elements of the visual environment of the scenic byway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape – landform, water, vegetation, and manmade development – contribute to the quality of the corridor's visual environment. Everything present is in harmony and shares in the intrinsic qualities.

APPENDIX B

SCENIC BYWAY CRITERIA

The visual quality along a potential byway route should be uniformly high. Diversity of scenic elements provides a “change of pace” and adds to the travelers’ enjoyment.



Figure 4 – Diversity of Scenic Elements

Information to be observed and collected during the inventory includes the following:

1. Types of views along the route including panoramas, scenes and focal points,
2. Quality of the various views along the route from outstanding to poor or distracting,
3. “Length of view”, how long one sees a particular view or element,

4. “Presentation”, relative ease of seeing the various views and elements as the road is driven,
5. Visual character of the roadway alignment (terrain or roadway ribbon),
6. Types of scenic areas or historic sites along the route,
7. Variety of views as the route is driven.

Types of Views

The visual inventory of elements can be divided into three types of views: focal points, scenes and panoramas. The three types of views provide a deeper understanding of the dimension of a “landscape setting”. Visual elements can appear to the traveler in all of the settings.

Focal Points are short views of a single feature or a detail of that feature. A focal point may be near to the roadway and stands alone or it may be a visual detail that catches the eye within a broader spectrum such as within a scene or panorama. A stone fence is one example of a focal point.



Figure 5 – Focal Point

However, the fence may be the focal point, yet it is an integral part of a larger scene that could contain a row of trees that creates the vegetation edge backdrop for a corn field. When this “depth of elements” occurs, dimension is added to the view and the view becomes more pleasing to the eye. Other examples of focal points are silos, unique barns, bridges, historic structures, unique vegetation, etc.

Scenes are views of comprehensive subjects. One or more elements will be present in a scene. A scene’s rating value results from the composition of the view with regard to the number of elements visible. A farmstead with a beautiful century home and a unique barn surrounded by attractive vegetation elements with livestock grazing on a grassy knoll is an example of a pleasing agricultural scene. One particular component may be a focal point within the scene, i.e., the century home.



Figure 6 – Scene

Panoramas are large vistas that provide a comprehensive view. A panorama will display a variety of elements. Topography is usually a key factor. The elevation of the traveler allows the “line of sight” to expose distant features. The duration is typically quite short unless a ridge-top roadway alignment keeps the traveler at a high elevation for a significant period of time. This long duration coupled with a multitude of aesthetic elements will produce excellent

visual character. The quality of the elements may not be as definitive as a scene or focal point because of the distances involved.



Figure 4 – Panorama

Quality of View

Iowa’s natural beauty is visible along roads throughout the state. Some of these roads are quite special and open up views of rolling hills and bluffs, picturesque streams, farms and quaint villages that dot the landscape giving the state its unique character. These roads are a state resource and rating the quality of view is important in the final evaluation of a byway nominee.

Rating a corridor for quality of view is broken down into seven ratings:

Extraordinary – exceptional quality (positive elements are unique and noteworthy – negatives are absent)

Excellent – outstanding quality (view makes a memorable lasting impression)

Very Good – very high quality (view captivates your attention)

Good – above ordinary in quality (view is pleasant but not memorable)

Average – so so views

Below Average – less than desirable
(views are unpleasant and may detract
from higher quality views)

Poor to Very Poor – very low quality
(views that are distracting or completely
distracting and make a negative
impression)

The goal of a byway program is to
identify and designate roads with views of
high scenic/heritage quality.

Length of View and Presentation

Travelers usually direct their attention
forward -- up front when driving a roadway.
Views with ratings of excellent or good are
visible for a distance sufficient to allow the
traveler to recognize and enjoy the view.

Pleasant views in the distance ahead
change from indistinct to distinct with a real
appreciation of all the elements that make
up the scene as one gets closer. Whereas
a pleasant view out the side window may
give the traveler only a “fleeting glance” of
the scene. Less time is provided to
recognize and appreciate the view.

A long-lasting view presentation, also
called “length of view”, is better than a string
of “quick” images perpendicular to the
roadway. An example of this can be seen
along a river or stream. Water scenes are a
strong attraction and a roadway along a
river provides many visual elements, i.e.,
water scenes, water’s edge focal points,
and an abundance of diversified vegetation.
It is unfortunate that in many circumstances
the roadside vegetation masks the views of
the water. When waterways are free from
view obstruction, i.e., clear-cutting of the
vegetation is evident along the roadway, the
traveler has time to view the river or stream
without distractions.

Direction of Travel

Direction of travel and the resulting “line
of sight” can have a big impact on the
presentation of element(s) in a panorama,
scene or focal point. A good example of
this is seen with numerous picturesque
farmsteads in Iowa. Windrows of trees still
exist on the north side of many homesteads.
When traveling south along a roadway, the
structures are often shielded from view by
the windrow until the traveler has gone by
the tree line. The “line of sight” is
compromised and the “length of view” is
minimal. Conversely, when traveling north
toward the same farmstead, a full view may
be present for many feet if the “line of sight”
isn’t obstructed. The scene will have a
greater impact on the rating because the
“length of view” (view-presentation) is
greater. Another example of presentation
would be a panorama displayed to the
traveler from one direction might not be
visible when the direction is reversed. This
is apparent when descending into the
Mississippi River valley on Highway 52 into
Guttenberg. The view is impressive.
Conversely, when the direction is reversed,
the same panorama isn’t in the “line of
sight” except out the rear window. Because
of these factors, inventory of scenic byways
is performed in both directions.

Roadway Visual Character



Figure 7 – Roadway Ribbon

The roadway plays an important role in displaying a corridor's visual character. A road that flows with the vertical terrain presents a variety of views from quick images of interest to vast hilltop panoramic vistas. A road with this vertical alignment offering the traveler a variety of views is rated higher due to the match of road to terrain.

Also key to a roadway's character is the horizontal (left and right) flow. A roadway that flows in this manner adds a new perspective to view presentation and most often will rate high because of the continual change in views. Roads with good horizontal alignment may be referred to as having good roadway ribbon.

Roadway character includes both vertical and horizontal alignment and will be influenced by the topography of the landscape. Scenic variety within the views presented to the traveler has a direct connection with how the roadway's alignment showcases the elements of scene composition.

Types Visual Elements

Byway nomination categories, as mentioned earlier, can be scenic, scenic/heritage or heritage. The inventory

of a roadway is performed to acquire data pertaining to the visual qualities (scenic or heritage) along a roadway corridor. A list of inventory elements was established that would be the basis for identifying key visual features present when driving a roadway corridor. The base elements include:

- 1) Landform
- 2) Water
- 3) Vegetation
- 4) Agriculture
- 5) Structures
- 6) Man-made features
- 7) Heritage features
- 8) Amenities

Secondary visual features, such as sub-categories of vegetation, can be associated with each of the base elements. In-depth discussions defining the elements used in the evaluation process are found in an upcoming section.

Variety of Views

Type and composition of views are two factors that contribute to the visual variety and diversity along a roadway. Type of view refers to the depth or length of view. A view of a distant landform feature from a hilltop offers a long panoramic view. A view of a scene containing a historic structure surrounded by stately pine trees and colorful vegetation is a shorter view with multiple elements. A view of a single windmill in an open native grass field is a single object that becomes a point of focus, i.e., a focal point. A roadway with scenic diversity that offers a variety of view types of high quality brings into being a continual change of pace which in turn will hold the traveler's attention and interest.



Figure 8 – Scene with Multiple Elements

The composition of view is also important. Composition of view refers to the elements present in a view. Basic elements are landform, water, vegetation and other natural factors. Human activity adds to these natural elements and includes agricultural activity, structures, and other man-made enhancements. A roadway that exhibits views with diversity of composition is favored over a monotonous corridor without diversity.

As mentioned earlier roads that curve and rise and fall with the terrain offer more opportunities for change of view type. The orientation of the traveler changes quickly and continual panoramas, scenes and focal points come in and go out of the line of sight. Scenic diversity is derived from a roadway alignment that delivers both long panoramic views and short detailed scenes and points of interest.

Distractive or Negative Views

Discussions to this point have centered on positive views. Some views along a corridor can be considered unattractive and distractive. Such views are rated as negative attributes in the corridor's evaluation. Negative views in some instances may be the predominant visual feature. As a result, that segment of a corridor may have a low to negative rating. In other instances, a negative view may

detract slightly from a positive feature. Negative features fall into various categories. Power lines and other transmission lines typically hinder the appreciation of an attractive view. Human activity such as junkyards or urban blight will almost always mask any positive element present. Too many distractive scenes along a corridor will create a low score and decrease the corridor's chance for designation.

Distractive segments along a corridor have an obvious impact. Measures can be taken to enhance the corridor by removing or shielding the negative element. However, the evolution of mankind and the energy demands placed to meet man's demands create many of these negative elements and to some extent can be overlooked. If a situation is too distractive, an alternate roadway may need to be considered to bypass the distraction. Some urban areas present a visual "eyesore" but corridors through these areas may also be necessary for access to and egress from the byway. Avenues with lodging, restaurants, service stations, recreation, and shops frequently do not add to the ambience of the corridor. However unsightly, these urban areas provide amenities to the traveler.

ASSIGNING A NUMERIC RATING TO SCENIC/HERITAGE QUALITY

We have established the criteria used in identifying scenic quality in a roadway. Numerous environmental factors play a role in the overall evaluation of a corridor. To assign a numeric rating to scenic quality requires detailed assessment.

A person's opinion of visual quality along a roadway is subjective; a judgment based on an individual's sense of aesthetics. It is easy to agree on the general quality of a view but to assign a numeric rating to the quality of view requires the individual to dissect the view and rate the elements within the view as to their scenic/heritage quality. Views that are

unpleasant are usually the result of human activity. Assigning a numeric to distractive scenes also requires the same process. The overall assessment should reflect how much the negative detracts from the positive.

INVENTORY ELEMENTS (POSITIVE)

Detailed assessment of a visual event is more easily managed if broken down into scenic/heritage “elements”. The inventory form developed and used in the driving inventory is made up of those specific elements to be recognized and rated for the final evaluation. The base elements include landform, water, vegetation, agriculture, structures, man-made features, heritage features, land use and amenities. The following discussion further details the base elements. (Also see Appendix B.)

Landform (Hills, cliffs, bluffs, rock outcrop)

Landform in scenic evaluations details the physical configuration of the earth’s surface. These physical features can be hills, mountains, cliffs, rock outcrops, etc. Landform is broken down into basic form and material (rock and soils). The character of the landscape is defined by the landform element present. This may also be referred to as the topography or physical configuration of a region.

Landform elements on the “evaluation form” refer to the most common topography types found in Iowa. Traversing the state from the west border to the east border, the traveler can enjoy the Loess Hills of the Missouri River, the terraced hillsides in the rolling plains and the rocky limestone bluffs of the Mississippi River.



Figure 9 – Landform (Hills and Bluffs)

When evaluating a corridor for landform, the features may be in the distance such as the hills and bluffs along the east/west Iowa borders. Or, the feature may be a focal point of exposed limestone outcrop directly adjacent to the roadway. In both cases the landform feature is a positive element in the evaluation. Some landform is not as pronounced as the Loess Hills but adds to the overall landscape quality of a corridor. The rolling hills in west central Iowa give the region a distinctive flavor though not as dramatic. The (on-going) hilly region is a continuous event in the evaluation. Potentially, the rolling landscape will coincide into a roadway feature (another element on the form). Roadway ribbon and roadway terrain may be present in this situation if the road follows the hilly topography. Another element is added to the evaluation. When landform and roadway character unite, typically “change of pace” occurs and the traveler is continually presented with changing scenes and the rating of the roadway is higher.

Landform is a significant element in scenic byway evaluations. Scenic quality is one of the intrinsic values. The Loess Hills would have both historic and scenic intrinsic qualities. See Appendix A for a list of “Intrinsic Qualities” established by the National Scenic Byways Program.

Some examples of landform include the following:

- Loess Hills – the glacial silt deposits along with varied topographic relief
- Rolling glacial landscapes
- Hills and valleys of numerous rivers across Iowa
- Limestone outcroppings of the Mississippi River bluffs and other Iowa rivers
- Boulders of glacial origin
- Ridge top earth divisions across Iowa
- Terraced hillsides (man-made landform)

Many areas in Iowa exhibit unique landform. Examples are the crop ridges along the “Old O’Brien Glacial Trail Scenic Byway” and the Effigy Mounds along the Great River Road. Both have historic significance and other “intrinsic qualities”.

Water (Lakes, ponds, streams, rivers)

Water as an inventory element includes basics such as water bodies (reservoirs, lakes and ponds), rivers and streams (moving water), and waters' edge settings. Water elements typically are an important drawing card for the traveler. The excitement generated by the great Mississippi with its picturesque river towns and locks is a tremendous positive in both scenic quality and historic significance. In this particular instance the water element relates to four intrinsic qualities; scenic, natural, historic and recreational.

When evaluating a corridor for water elements, a variety of environmental factors are present. Rural Iowa farms exhibit an abundance of lakes and ponds. The setting will dictate how valuable the water body is to the corridor. A small pond alone in a large native grass field without relief, though noticed, doesn't rate as well as a pond nestled in a natural waterway with native trees as a backdrop. In a farm setting, lakes and ponds might support an agricultural element also if livestock are present. The depth of elements (water

feature and agriculture) creates more interest.

Large lakes make a more profound statement because of the magnitude of water. These bodies of water such as reservoirs typically create more elements for the observer. The setting can present a water element and structures, i.e., the dam and related structural workings. The addition of landform (channels and coves created by erosion), hills, vegetation and wildlife to the scene and it becomes a visual attraction. Most large bodies of water offer recreational opportunities such as fishing and boating. Recreation is one of the six intrinsic qualities.



Figure 8 – Water Scene

Rivers, streams, and waterfalls add interest to the roadway corridor. From the immense waters of the Mississippi and Missouri to the serenity of the Des Moines River, these moving waterways draw the travelers' attention. These natural water features are usually embellished with many varieties of vegetation. The impact of human activity along the waterways can also be a positive. Bridges of interest and rustic river towns add to the water element. Small streams have an impact and are of interest but on a smaller scale.

The water's edge element may be viewed as a focal point in a larger water scene. For example, one might see delicate vegetation, sedimentary layering, rocky

ledges, blooming water lilies, etc. along the edge of the water body. Even a fleeting glance adds to the character of the view.

Some water elements attract negative surroundings. Dilapidated buildings, vegetation obscuring the view and industrial activity near a water element detracts from what is otherwise visually pleasing.

Sight distance plays a role in the overall impact of each water feature. Crossing a bridge over a small tree-lined stream gives the traveler little time to view the water feature whereas meandering along a clear-cut river road with multiple views will have a greater impact on the evaluation.

Water elements in Iowa are as diverse as the region they occupy. Each river or stream from border to border will have some kind of impact on the evaluation. Examples of the water element are:

- Views from the hills of loess high above the Missouri River
- The locks along the Mississippi along with the massive expanse of water related features
- A drive through Ledges State Park or Backbone State Park
- The lily-laced lake at the Amana Colonies
- Crossing the Wapsipinicon or Cedar Rivers
- Red Rock Lake near Pella
- A meandering stream
- A beautiful farm pond

Vegetation (Forests, fields, vegetation color/pattern, vegetation edge, unique)



Figure 9 – Vegetation Color/Pattern

The elements of vegetation are vast and multi-faceted. The evaluation form is comprised of four sub-elements; forests and fields, vegetation color/pattern, vegetation edge and unique vegetation. The best rating of a scene in this category will probably contain at least three of the sub-elements. Scenic evaluations rely heavily on vegetative landscapes in the form of wide panoramas, captivating scenes and inviting focal points.

Along most corridors, a vegetation element of some type is continually present. This may be nothing more than natural grasses, but the vegetation element is present. The first category is forests and fields. Agricultural cropland is very similar and can overlap into this category because the baseline is vegetation. Inventory and evaluation of this element needs to be done when the vegetation is actively growing. Each season brings a new dimension to the evaluation and may heighten in spring and fall. Blooming trees and flowers in the spring fade but another form of vegetation will emerge to replace that element. Fall brings on a vast color display that is predictable and should be taken into consideration while performing the inventory. Evaluation of vegetation should take into account that a corridor may rate higher in different seasons but the basic elements will remain the same.

Characteristics of the fields and forests need to be diverse and have good quality. Fields comprised of scrub bushes and weedy matter should not rate well compared to a lush native grass pasture. Forests of hardwoods and fine evergreens are more pleasing than inferior deciduous clumps and cedar infestation. Forested hilly regions are positive as well as the rolling pastureland. Keep in mind that the native grass field may eventually be harvested and will produce hay bales that add another key element of interest.

Vegetation color/pattern rates very well in the evaluation process. The multitude of foliage types makes up the color and the mix of types and planting patterns provide the pattern. A field scene with rust colored native grass interrupted with a grove of native oak trees draws the attention of the viewer. The colors of the grass contrast with the trees and the backdrop creating depth to the landscape scene. The eye will view the elements of the scene but will be drawn to the focal point (oaks). Depth of diverse scenic elements provides visual interest.

Contrast between one vegetation element and another, i.e., light green pastureland against a deep green forest creates a vegetation edge and can add significantly to the scenic quality of a corridor. In addition to the color contrast is the texture created by different specimens of vegetation. The texture of a field of grain differs noticeably from white pine shaggy boughs of an evergreen forest. Again, this scene will rate more favorably because of the element of interest created by the distinct edge between vegetative types.

Unique vegetation may be natural or man-made. A grove of specimen trees in an unlikely setting will appear unique to the surroundings. A man-made setting such as a row of strategically placed upright junipers in a cemetery setting certainly draws the attention of the observer. Unique vegetation should rate high in the evaluation

process. The uniqueness of the vegetation element in most cases will be the focal point and will be memorable.

Elements of vegetation in scenic byway evaluations weigh heavily in the rating. Vegetation types on the landscape can lend themselves to intrinsic qualities. Vegetation along a corridor can fall into the category of scenic, natural and possibly historic. The diversity of vegetation types exhibited throughout the state makes this element especially important to the evaluation process.

Agriculture (Farmland color/pattern, features, activity, unique)

Iowa's economy is deeply seated in crop production and the livestock industry. This can be observed across the state and has a considerable effect on the evaluation process. The evaluation of agricultural elements includes; agricultural farmland (color/pattern), agricultural features (barns, structures), agricultural activity (hay bales, livestock), and unique agriculture.



Figure 10 – Agricultural Farmland

The topography in many areas of Iowa sets the stage for picturesque agriculture scenes. Numerous hillsides contain expansive views of diverse grain varieties with contrasting color and pattern.

The eye perceives a quilt comprised of grain patterns and color. When this array of crops is terraced, the depth and quality of view is superb, as dimension has been added. The color and patterns in agriculture begin early in the spring and continually changes until harvest. An average flat field of corn gets an average rating whereas a terraced field of corn that ribbons along hilly landform separated by other crops to create pattern gets a high rating. The portion of “Western Skies Scenic Byway” west of Kimballton personifies excellence in agricultural color and pattern. The Little Switzerland area in northeast Iowa contains examples of all the agricultural elements.

Like the vegetation element, many agricultural elements are present on a continual basis along a corridor. The types of crops change often, creating interest and variety. A high rating for agricultural elements typically includes at least three of the four sub-agricultural elements. Consider that a vegetative element may also be present creating depth of element types, which results in a higher rating.

The category of agricultural farmland color/pattern describes most of the rural land in Iowa. Rating of this element depends on presentation and quality. The corn rows or other crops rate well when presented along terraced hillsides or are contrasted in front of a vegetation edge. Agricultural elements reflecting a variety of color attracts the eye. Often this creates a pattern effect if a field is viewed from a distance. A pattern occurs when one crop is interrupted by another crop with different color and texture. Add to the field scene a well-manicured farmstead with a home and out buildings and “depth of farm elements” occurs. Agriculture structures can have a very positive effect on a corridor’s rating. Very often the structure(s) will be the focal point in an agricultural crop scene.

Within the scene described above can be agricultural activity. This element can encompass a variety of attractions.



Figure 11 – Agricultural Activity

Livestock present in the picturesque pasture scene is a pleasant addition. In contrast, an agricultural setting with a feedlot is usually a negative. Agricultural activity occurs in many forms. The grain cutting techniques may have cultural significance, i.e., Amish activity present in numerous locations in the state. The Amish farming practices and transportation modes tie closely with the intrinsic quality guidelines. The farmsteads and croplands of the Amish have historic, natural and agricultural significance and rate very well. Their farms would also be in the agriculture unique category. Agriculture unique is agriculture not commonly found throughout the state.

Agricultural elements combined with vegetation elements can create the highest scenic rating in the corridor evaluation process. The diverse topography creating sweeping views of agricultural lands in the state factor immensely into the rating of a scenic corridor. As discussed earlier, the agricultural element can relate to other intrinsic qualities if the element is found in its natural state or is relational to historic significance.

Structures (Buildings, bridges, historical sites, man-made objects)

The structure element includes general and unique buildings that are worth rating, i.e., the buildings have a positive value. These structures can include churches, homes, barns, historic district buildings, bridges and other structures of interest. A church made from native materials in a pleasant setting with unique architecture adds significantly to a corridor.



Figure 12 – Structure Focal Point

The setting has merit in the evaluation. Consider the quality of the landscape surrounding a structure(s). A building becomes a focal point when framed in a natural setting. The eye is drawn to the object. However, if the building is noteworthy but is obscured by clutter and development, the positive effect is diminished. In contrast the village in the distance surrounded by colorful farmland rates well as a structure scene. A town square of period buildings along a corridor has structural significance as well as historic consideration. This particular setting rates in both categories and creates a high rating.

Many objects other than buildings are included in the structure element category. Some examples include, but are not limited to, windmills, water towers, bridges, monuments and fences. These points of interest can be in the immediate line of sight or off in the distance. Objects of significance are worth noting on the inventory form.

Manmade Features (Color/pattern, unique, picturesque objects)

Elements in this category may overlap somewhat with other categories. As just noted, a structure could qualify in two areas. Unique structures are evidence of human activity. The bridge at Lansing across the Mississippi looms as a contemporary piece of artwork, a manmade unique structural feature. The buildings in Lansing are classic river town antiquated buildings, also manmade, and are categorized as structures as well as historic sites. The contemporary bridge and historic buildings are structures from differing time frames that create interest for the traveler.



Figure 13 – Picturesque Structures

A cemetery with symmetrical rows of head stones and strategically planted trees is an example of man-made color/pattern activity. When in the proper setting, this focal point is noteworthy. Another human activity with color/pattern and uniqueness is presented along the “Old O’Brien Scenic Byway” with the giant wind machine captivating the landscape. Both situations, although subjective, add to the landscape along the corridor.



Figure 14 – Man-made Unique Structure

Heritage Features (Historic sites, corridor depicts historic theme)

Previous text has touched on heritage (cultural) features along a corridor. Depending on the historical significance, numerous elements on the evaluation form may fit into this category. “Historic” is an intrinsic quality established in the National Scenic Byway Program guidelines. “Historic Quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or manmade, that are of such historic significance that they educate the viewer and stir an appreciation for the past. The historic elements reflect the actions of people and may include buildings, settlement patterns, and other examples of human activity. Historic features can be inventoried, mapped, and interpreted. They possess integrity of location, design, setting, material, workmanship, feeling, and

association.”¹ A Heritage Byway in Iowa’s program is defined, “Heritage, where designation is based on a high degree of consistent historic or cultural significance and has little or no scenic quality.”² A byway in Iowa can also be a combination of scenic and heritage.

Heritage byways should emphasize the apparent intrinsic qualities characteristic of a corridor. The heritage corridor exhibits historic elements, cultural resources and possibly historic landscapes. These roadways should give the traveler a sense of the history reminiscent of the period.

Heritage elements inventoried in the evaluation process can be categorized into three types of elements: land use, structures, and road related items. Land use is a primary element of the historic setting. A heritage corridor should exhibit several characteristics of the original land use period. Structures or historic sites along the corridor include buildings, corrals, pens, grain elevators and other structures that were an important element of the historic setting. Road related items are elements directly associated with road design used in historic roadways.



Figure 15 – Historic Structure

¹ National Scenic Byways Program (FHWA 5.18.95)

² Iowa Scenic Byway Program Designation Guide

Two examples of heritage corridors are the Amana Colonies and the Lincoln Highway. The Villages of the Amana Colonies, the millrace, and native forest regions are still evident and can be viewed by the traveling public. Take a drive along Highway 30 on the Lincoln Highway (first transcontinental highway in the U.S.) and one will see evidence of period buildings, engineering structures, power poles (with red, white and blue bands and a stenciled "L"), concrete corner markers and monuments dedicated to Abraham Lincoln. The traveler will get a feel of the period in times past.

Corridors inventoried for heritage features require research and detailed information about the period and timeframe. A corridor may have an extensive history tied to its theme. However, if travelers cannot visually identify with the period or see physical evidence of artifacts, they will be disappointed.

Land Use Along a Corridor

Land use along a roadway is an important visual element. A pleasing background becomes the canvas and the visual elements added to the canvas create the picture. Consider the canvas as a background of rolling native grasslands. Visible images (elements) displayed on this background may be grazing cattle, hay bales, a windmill and a tree-lined stream. The composition and quality of elements are key to the visual quality. Good background remains pleasant even if visual elements have changed, as the hay bales are gone. The sub-categories of land use include; forests, wetlands, agriculture, mixed native and urban.

- Forests and woodland species adjacent to the roadway can be very pleasant and can create a tunnel effect for the driver. When the species meet overhead

the effect is especially pleasing. Mix in openings with distant views periodically and variety in elements is a continuing event.

- Wetlands in Iowa are limited but evident in several areas. A unique combination can be found along the Mississippi River with its areas of marshy wetlands and wildlife refuges. The wetlands may be on one side of the roadway and a forested bluff may be on the other side.
- Agriculture land use includes row crops, grass crops and livestock-grazed grasslands. Unusual crops might include orchards or gardens.
- Mixed native includes prairie grasses and prairie vegetation. In addition, abundant species of wildflowers adorn the fields and right-of-way throughout Iowa and provide noteworthy color and interest.
- Urban landscape land use impacts a corridor. The sleepy farming town with period structures will have a favorable impact on a corridor compared with a large urban area cluttered with billboards, power poles and strip development.

Land use adds, detracts or maintains a neutral rating when evaluating a corridor. Notable sections of a roadway provide positive attributes and add to the overall scenic quality.



Figure 16 – Mixed-native Land Use

Roadway Ribbon

Good presentation of views occurs when a roadway conforms to the horizontal contours of the landscape. The traveler is continually presented with a change in sight of view. The variety of views presented as the road winds back and forth prevents monotony. This element when present will typically be positive to the corridor rating.



Figure 17 – Roadway Ribbon

Roadway Fits Terrain

Roadways rising and falling with the landscape have good vertical alignment. This leads to anticipation for the traveler, “What is over the top of the hill?” When the roadway conforms rather than cuts through the landscape, the views open up for more pleasurable driving. Severe cuts can inhibit seeing landscapes to the side of roadway.

Topography

A combination of vertical and horizontal alignment of a roadway conforming to the topography creates a visually pleasing platform for the display of elements. The result is almost always positive. In certain situations, a roadway may have been straightened and flattened but still reveals the character of the

landscape. When this event happens, use the topography category on the evaluation form. A positive rating here reflects undulating topography adjacent to the roadway, which adds character. An example of this event can be seen in places along Interstate 80 where the road has little horizontal and vertical alignment but the visible undulating landscape is an integral part of the driving experience.

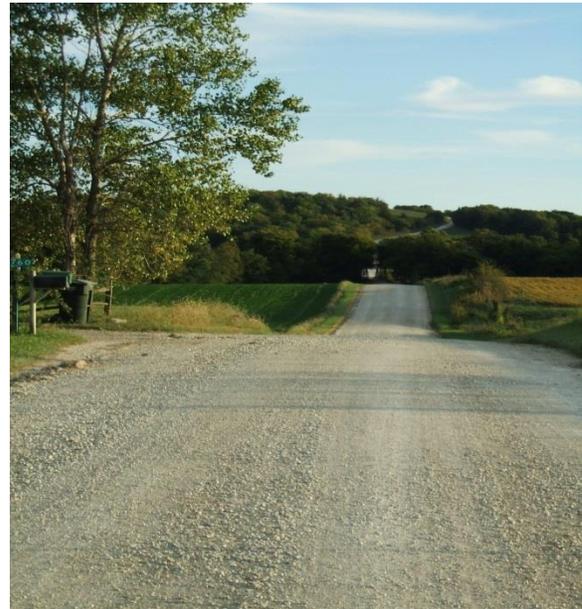


Figure 18 – Roadway Fits Terrain - Topography

Amenities

Amenities along a corridor such as parks, points of interest, museums, recreational facilities, etc. provide valuable resources for the traveler. These amenities should be taken into consideration and noted on the evaluation form. The nomination application that was submitted by the organizing group generally includes the amenities and their location. Examples of amenities include:

- Camp Grounds
- Recreational Facilities
- Parks

Points of Interest
Attractions
Hotel/Motels/Resorts
Bed-and-Breakfast Inns
Service Facilities (gas stations)



Figure 19 – Recreation (Water Sports)



Figure 20 – Bed-and-Breakfast

Landscape

Landform scars, water erosion, and vegetation obscuring the view will negatively impact the natural beauty of the landscape. Eyesores such as rock quarries with heavy truck traffic detract from the scenic quality. A roadway winding along a river that is obscured by scrubby vegetation will not rate as well as a roadway that reveals the river, its banks and the plant life adjacent to the water.

View Distraction

Litter, graffiti, billboards, junkyards, utility poles and transmission lines are distractive views. These structures are negative elements and have been introduced by man. A billboard showcased in front of a forested hillside is not a natural view and becomes a negative focal point. Transmission lines and various commercial properties are necessary structures. A single pole with minimal lines is more tolerable than multiple poles stretching as far as the eye can see. Viewer discretion is key in rating this distraction. Do the positive elements outweigh the negative elements? Does the corridor's visual quality surpass and suppress the negative elements?

NEGATIVE VISUAL FEATURES (ELEMENTS)

Negative elements fall into various categories similar to the elements in the positive category. Distractive sections along a corridor have an obvious impact. Acknowledgement should be made of these elements. Ultimately, a corridor's rating is determined by how much of the route has an above average rating.



Figure 21 – View Distraction (Power Poles)

Structures (Man-made)

Strip development, dilapidated buildings, manufacturing operations, and untidy rural settings are examples of negative elements not natural to a scenic area. Any object that detracts from the scenic quality of a corridor is a negative to the overall rating. It is not uncommon to have a considerable length of roadway with a negative value. A large manufacturing complex is an example of this.

Again, man-made structures for the purpose of enterprise are necessary. However, if the distractive elements overshadow the beauty of an area of the corridor, alternate routes should be considered. Enhancements to the area such as landscaping and renovations may improve blighted areas enough to minimize the negative impact.



Figure 22 – Untidy Farm Setting

CONCLUSION

Rating a roadway corridor for its scenic and/or heritage quality requires careful consideration of the inventory elements. A scenic corridor should contain outstanding visual features. These features may be scenic vistas displaying geologic features, unique vegetation, attractive water features, or pleasing man-made scenes. The horizontal and vertical alignment of the roadway is a fundamental part of a scenic road. Continually changing roadways traversing diverse terrain provide a wide composite of views and vistas. As one visual feature is passed another is encountered providing a uniformly enjoyable experience for the traveler.

Careful identification of the visual elements (landform, water, vegetation, agriculture, structures, man-made features, heritage features, and amenities) along with equitable rating of the elements will assure that outstanding scenic beauty and noteworthy heritage artifacts have been recognized. Roadways designated as scenic should be superior when compared with other roads in the state. These byways need to represent Iowa's finest scenery.

A scenic byway should meet the following criteria:

- 5) High scenic quality should exist over fifty percent of the route.
- 6) The corridor should offer diversity and provide good “change of pace” that holds the observer’s interest.
- 7) The corridor should have areas containing outstanding views.
- 8) The visual character of the corridor should produce a lasting impression.

also be discussed.

The heritage byway’s purpose is to present “legacies of the past” to the contemporary driving traveler in such a way that the traveler will connect with elements of a particular time and appreciate that timeframe. The corridor should exhibit cultural features, human activity, structures, and other historic features reminiscent of the period of time and setting.

The next section details the field survey process (inventory). Rating the elements will

APPENDIX C

INVENTORY ELEMENTS

(Definitions)

POSITIVE ELEMENTS

Landform:

Basic -- hills, valleys, bluffs, general land forms

Material – rock outcrop, soils

Unique – unusual forms (arched rock formation) or materials (loess soil)

Water:

Basic – water bodies (ponds, lakes, reservoirs, and channels)

Moving – streams, rivers, waterfalls

Edge – transition from the water to the land, such as (soils or a rocky ledge) or vegetation (grass or other foliage) associated with the water's edge

Vegetation:

Basic – forests, fields, grasslands

Color/Pattern – vegetation producing colors and patterns such as (a forest with a mix of deciduous trees and evergreen trees producing color variations)

Edge – transition zone between vegetation types (grasslands in front of a forest backdrop)

Unique – unusual vegetation

Agriculture:

Basic – farmlands without distinct composition

Color/Pattern – agricultural crops producing colors and patterns, i.e., adjacent plantings that display differences in color (corn planted next to soybeans) – (row crops displaying patterns)

Features – barns, windmills, silos, other ag. structures

Activity – farm animals, hay bales, harvesting

Unique – unusual agricultural features (orchards, nurseries, etc.)

Structures:

Basic – general structures or buildings (houses, churches, businesses, bridges, museums, etc.)

Unique – unusual structures or buildings deviating from the norm

Human Activity (Manmade features):

Color/Pattern – structures producing colors or patterns (cemeteries, etc.)

Unique – stone fence row,

Picturesque buildings or structures – a historic courthouse, old grist mill, etc., (parallels with the structure category)

Heritage Features:

Historic site – archeological area, architectural monument, building(s) with historical significance, etc.

Corridor theme – activity, historic sites, and landscapes reflect a corridor's theme (example – Amish Community)

Land Use along Corridor:

Background – forests (woodlands), wetlands (marshy refuge), agriculture (row crops and mixed agriculture), mixed native (prairies of native grasses or native foliage), or urban (concentration of buildings in an urban setting or urban/rural setting)

Roadway Ribbon:

Roadway meanders horizontally with the terrain (curvy alignment)

Roadway Terrain:

Roadway flows vertically with the terrain (hilly alignment)

Undulating Topography:

Landscape is rolling and adds to the character of the view quality.

Amenities:

Includes areas with public facilities (museums/monuments, parks, recreational areas, campgrounds, hotels/motels, bed and breakfasts, restaurants, service areas, points of interest, etc.)

NEGATIVE ELEMENTS

Landscape:

Landform scars (mining activity), water erosion, vegetation obstructing view (view of positive feature is encumbered by overgrowth of vegetation)

View Distraction:

Litter, graffiti, billboards, junkyards, utility poles, transmission lines, etc.

Structures (manmade):

Strip development, urban deterioration or blight, dilapidated buildings, unkempt areas, unsightly manufacturing operations, disheveled rural settings, abandoned properties or machinery

APPENDIX D

APPLICATION FOR IOWA'S BYWAYS DESIGNATION SUMMARY

Applicant Agency [Governmental Sponsor]:

Contact Person [Name, Title]:
Mailing Address:
Telephone:
FAX No.:
Email:

Supporting Applicant Organizations or Individuals:

Contact Person [Name]:
Mailing Address:
Telephone:
FAX No.:
Email:

Location of Proposed Scenic/Heritage Byway Route:

Designation Category Being Applied For: (Choose one)

- A. Scenic - all naturally scenic
- B. Scenic/Heritage - combination of naturally scenic and historic
- C. Heritage - all of historic or cultural significance

Road Description: [Number, Name]:

- Length of Proposed Route:
(A 20 mile or more non-segmented, continuous route is preferred for scenic or heritage designation.)
- Route Begins at:
- Route ends at: (Preferred Termini are Primary Highways, Either Iowa or U.S.)
- Surface Types (List for all road sections included on the proposed byway):

Names of Counties the Route Passes Through:

Byway Features:

- **List all naturally scenic features and any unusual land forms or views along the roadway:**
- **List all noteworthy heritage [historic and cultural] features along the roadway** (This may include historic sites and districts; unimproved natural areas such as native prairie, grassland or forests; and any other elements of historic significance.):
- **List all distractive features noted along the road corridor:** [This may include unsightly animal feed lots, junkyards, an abundance of billboards, advertising signs, telephone poles and wires, etc.]

Road Alignment: Road does not curve at all, Road curves some of the time, Road curves most of the time, Road is flat the entire length, Road rises and falls some of the time, Road rises and falls most of the time,

Letters of Support: Please attach letters of support for the byway nomination from all city and county government entities that the route passes through. These letters of support should be written with the full understanding of all the implications and responsibilities that a byway designation carries with it (i.e. restrictions for billboards, etc.).

APPENDIX E

Iowa Byways 2014 Application Evaluation

Application Summary				
Scenic	Scenic and Historic	Historic	Other	
New Byway	Extension	Realignment	Other	
Miles	Existing Miles	Existing Miles		
	Added Miles	Added Miles		
Key Reason/Features:				
Application Checklist				
			YES	NO
Date received		Received by October 1, 2014?		
		Submitted by appropriate entity??		
Submitted by		Existing byway board support?		
Feature	Count	Form Complete?		
Scenic		Route documented?		
Historic		Jurisdiction(s) support all documented?		
Other		Amenities provided		
		Accept application?	YES	NO
Comments:				
Initial Review DOT Comments				
Field Review- DOT Drive Comments- Including Safety and road conditions				
		OSP Recommend Proceed with Evaluation?	YES	NO
		Byways Advisory Council Recommend Proceed with Evaluation?	YES	NO
Evaluation Team				
Team Members	Name	Email	Phone	
DOT Byway				
DOT Plus				
Expert 1				
Expert 2				
Local Contact(s)				
Driver				

2014-2016 Field Evaluation Summary

General Description and Summary							
Evaluation Tool Scores							
Overall Scenic		Score		Overall Historic		Score	
Intrinsic Values							
Scenic				Historic			
Natural				Archeological			
Recreational				Cultural			
Average score		Density overall		Category scores			
				Scenic			
		Density / mile		Historic			
				Scenic and historic			
Evaluation Team Comments							
Follow-up needed?							
<i>(attach exhibits as needed)</i>							
Evaluation Team Recommendation				Systems Planning Recommendation			
	Date	YES	NO		Date	YES	NO
Designation				Designation			
Extension				Extension			
Realignment				Realignment			
Detour				Detour			
Advisory Council Recommendation				Iowa DOT Action			
	Date	YES	NO		Date	YES	NO
Designation				Designation			
Extension				Extension			
Realignment				Realignment			
Detour				Detour			

APPENDIX F

2016 Additional Suggested Byway Considerations for Recommendation

- Is the byway a good representation of the regions assets and features?
- Will this byway cause a negative impact on an adjacent byway?
- Is the byway extension/ route change fully supported its own advisory board?
- Would a different route be more preferable for content or safety reasons?
- Are there road infrastructure or safety concerns?
- Is the route ...
- Would a different category be more appropriate?
- Are there any political pros or cons the Advisory Council should be aware of?